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|  | FDOT Traffic Engineering Research Laboratory (TERL)  Portable Regulatory Sign Compliance Matrix | By signing this form, the applicant declares that he/she has read and understands the provisions of Section 990 of the FDOT *Standard Specifications for Road and Bridge Construction* and all implemented modifications. The requirements listed on this matrix are derived from Section 990 and are the basis for determining a product’s compliance and its acceptability for use on Florida’s roads. |

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| --- | --- | --- | --- |
| Date: | Click here to enter a date. | Applicant’s  Name (print): |  |
| Manufacturer: |  |  |  |
| Item, Model No.: |  | Signature: |  |

| **ID No** | **Section** | **Requirement** | **Item Comply? (Yes/No/NA)** | **Comments (Applicant must provide information as indicated)** | **TERL Evaluation Method** |
| --- | --- | --- | --- | --- | --- |
| The following compliance matrix criteria are for all portable regulatory signs. | | | | | |
| 1 | 990-3.1 | Device meets the physical display and operational requirements of the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways. |  | *Provide documentation specified in MUTCD line items below.* | Document Review, Physical Inspection and Functional Inspection |
| The following compliance matrix criteria (referencing the MUTCD) are from the MUTCD and are for all portable regulatory signs with a flashing beacon. | | | | | |
| 2 | MUTCD Section 4S.01.03 | Beacons flash at a rate of not less than 50 or more than 60 times per minute. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Functional Inspection |
| *Indicate location of requested information in submittal.* |
| 3 |  | The illuminated period of each flash is a minimum of ½ and a maximum of 2/3 of the total cycle. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Functional Inspection |
| *Indicate location of requested information in submittal.* |
| 4 | MUTCD Section 4S.01.04 | A beacon is not included within the border of a sign. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 5 | MUTCD Section 4S.01.05 | The diameter of the flashing beacon signal indications is 8 inches or 12 inches. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| The following compliance matrix criteria (referencing the MUTCD) are from the MUTCD and are for all portable regulatory signs with a warning beacon. | | | | | |
| 6 | MUTCD Section 4S.03.02 | Warning beacon has one or more signal sections of a standard traffic signal face with a flashing yellow signal indication in each section. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| The following compliance matrix criteria (referencing the MUTCD) are from the MUTCD and are for all portable regulatory signs with a speed limit sign beacon. | | | | | |
| 7 | MUTCD Section 4S.04.02 | Speed limit sign beacon has one or more signal sections of a standard traffic signal face with a flashing yellow signal indication in each section. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 8 |  | If two or more signal indications are used, they are alternately flashed. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Functional Inspection |
| *Indicate location of requested information in submittal.* |
| The following compliance matrix criteria (referencing the MUTCD) are from the MUTCD and are for all portable regulatory signs. | | | | | |
| 9 | MUTCD Section 6G.02.02 | The sizes for portable regulatory signs, specifically speed limit signs (R2-1) are those in Table 6G-1. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| The following compliance matrix criteria are for all portable regulatory signs. | | | | | |
| 10 | 990-3.1 | All assembly hardware less than 5/8 inch in diameter is type 304 or 316 passivated stainless steel. Stainless steel bolts, screws and studs meet ASTM F593 and nuts meet ASTM F594. |  | *Provide statement of conformance from hardware supplier that shows the product meets this requirement.* | Document Review |
| *Indicate location of requested information in submittal.* |
| 11 |  | All assembly hardware greater than or equal to 5/8 inch in diameter is galvanized. Bolts, studs, and threaded rod meet ASTM A307 and structural bolts meet ASTM F3125 Grade A325. |  | *Provide statement of conformance from hardware supplier that shows the product meets this requirement.* | Document Review |
| *Indicate location of requested information in submittal.* |
| 12 |  | All electronic assemblies shall meet the requirements of NEMA TS 4. |  | *Provide the following:*   * *A third party test report that demonstrates compliance with this requirement.* * *A completed Testing Laboratory and Report Checklist.* * *A completed NEMA TS4 2.2.3-2.2.6, 3.1.1 & 5.4 Checklist.* | Document Review |
| *Indicate location of requested information in submittal.* |
| 13 |  | The controller and associated on-board circuitry are not affected by mobile radio, or any other radio transmissions. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review |
| *Indicate location of requested information in submittal.* |
| 14 |  | An operator’s manual is furnished with each unit. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
| 15 |  | All portable devices are permanently marked with the APL number, manufacturer’s name or trademark, model/part number, and date of manufacture or serial number. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 16 |  | The trailer is delineated with retroreflective material, known as conspicuity material, in a continuous line on the face of the trailer as seen by oncoming road users. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| The following compliance matrix criteria are for solar powered portable regulatory signs. | | | | | |
| 17 | 990-3.1.1.1 | The unit provides automatic recharging of power supply batteries to normal operating levels with meters showing charge. |  | *Applicant may provide comments in this field.* | Physical Inspection and Functional Inspection |
| 18 |  | Solar array recovery time is accomplished in a maximum of three hours. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| 19 | 990-3.1.1.2 | The photovoltaic unit is designed to provide 10 days of continuous operation without sunlight with a minimum of onsite maintenance. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Functional Inspection |
| *Indicate location of requested information in submittal.* |
| 20 |  | The battery is equipped with a battery controller to prevent overcharging and over-discharging; an external battery level indicator is provided. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 21 |  | The battery, controller, and power panel are protected from the elements and vandalism. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 22 |  | Automatic recharging of power supply batteries is provided with charge indicator meter. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Functional Inspection |
| *Indicate location of requested information in submittal.* |
| 23 |  | An AC/DC battery charger unit is provided. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| The following compliance matrix criteria are for all portable regulatory signs. | | | | | |
| 24 | 990-3.1.2 | The display housing assembly is weather tight. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
| 25 |  | The display assembly is equipped with an automatic dimming operational mode capable of a minimum of 50 percent dimming and a separate manual dimmer switch. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Functional Inspection |
| *Indicate location of requested information in submittal.* |
| 26 |  | The display panel background and frame for the display assembly is painted flat black and meets Federal Specification TT-E-489. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review |
| *Indicate location of requested information in submittal.* |
| 27 |  | The display panel, when raised in the upright position, has a minimum height of 7 feet from the bottom of the panel to the ground, in accordance with the MUTCD. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 28 |  | The unit has an accessible mechanism to easily raise and lower the display assembly; a locking device is also provided to ensure the display panel will remain in the raised or lowered position. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 29 | 990-3.1.3 | Controller and control panel are housed in a weather, dust, and vandal resistant lockable cabinet. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 30 | 990-3.1.4 | The support chassis is self-contained and self-supporting without the use of additional equipment or tools. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 31 |  | The sign, power supply unit and all support systems are mounted on a wheeled trailer. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 32 |  | The trailer is equipped with class-A lights, using a plug adaptor. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 33 |  | The trailer is equipped with adjustable outrigger leveling pads, one on each of the four frame corners. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and  Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 34 |  | The trailer can be set up at the site with its own chassis and outriggers, without being hitched to a vehicle. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| 35 |  | The trailer is equipped with fenders over the tires made from heavy-duty material sufficient to allow a person to stand and operate or perform maintenance on the unit. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 36 |  | The trailer meets all equipment specifications set forth in Chapter 316 of the Florida Statutes, and by such rule, regulation or code that may be adopted by the Department of Highway Safety and Motor Vehicles. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| The following compliance matrix criteria (referencing Florida Statutes (F.S.)) are from Chapter 316, F.S. and are for trailers. | | | | | |
| 37 | F.S. Section 316.221(1) | The trailer is equipped with at least two taillamps mounted on the rear, which, when lighted as required in 316.217, F.S., emit a red light plainly visible from a distance of 1,000 feet to the rear. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| 38 | F.S. Section 316.221(2) | Either a taillamp or a separate lamp is placed as to illuminate with a white light the rear registration plate of the trailer and render it clearly legible from a distance of 50 feet from the rear. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| 39 | F.S. Section 316.222(1) | The trailer is equipped with two or more stop lamps meeting the requirements of 316.234(1), F.S. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| 40 | F.S. Section 316.222(2) | The trailer is equipped with electric turn signal lamps meeting the requirements of 316.234(2), F.S. |  | *Applicant may provide comments in this field.* | Functional Inspection |
| The following compliance matrix criteria are for all portable regulatory signs. | | | | | |
| 41 | 990-3.4.1 | The sign panel assembly consists of a “SPEED LIMIT XX” sign panel and a “WHEN FLASHING” sign panel. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 42 |  | The sign panel folds down and can be pinned in place for towing; travel height does not exceed 80 inches. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 43 |  | Sign panel and light housing are constructed to allow the unit to be operated in the displayed position at speeds of 30 mph and transported at speeds of 65 mph. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 44 |  | Unit is provided with a mechanism to raise and lower the sign panel and a device to lock the sign panel in the raised and lowered position. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 45 | 990-3.4.2 | A pair of hooded PAR 46 LED advance warning flashing lamps, visible day or night at a distance of one mile with a flash rate of not less than 50 or more than 60 times per minute, is provided on each side of the top of the sign panel. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
| *Indicate location of requested information in submittal.* |
| 46 |  | The lamp lens is at least 5 3/4 inches in diameter. |  | *Applicant may provide comments in this field.* | Physical Inspection |
| 47 |  | For solar powered units, the bulbs provide a 350-candlepower intensity for day use and an automatic reduction or dimming capacity for night use; the dimmed night operation provides adequate indication without excessive glare. |  | *Provide product literature, specifications, user manual, or similar information that shows the product meets this requirement.* | Document Review and Physical Inspection |
| *Indicate location of requested information in submittal.* |

**Document History for:**

**Portable Regulatory Sign Compliance Matrix**

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| Rev | Description | Authored and Checked | Reviewed | Approved | Approval Date | Rev More Stringent? |
| 1.0 | Conversion from Excel to Word and adding evaluation criteria | D. Bremer | C. Morse  D. Vollmer | J. Morgan | 01/28/2013 | N/A |
| 2.0 | Modified disclaimer to indicate compliance matrix is governing document and referencing PCH section 7.2 in place of A601-3. | A. Burleson | J. Morgan | J. Morgan | 05/09/2013 | No |
| 3.0 | Replaced FDOT logo with latest approved one and added CM ID # to header. Revised document approver title. | A. Burleson  K. Moser | J. Morgan | J. Morgan | 10/31/2014 | No |
| 4.0 | Updating to latest FHWA (FA 1-13-15). There is a current FHWA review, but the proposed changes do not affect the portable regulatory sign. | D. Bremer | M. DeWitt  C. Morse | J. Morgan | 08/31/2015 | No |
| 5.0 | Updated to reflect latest FA approval date of 8-11-15. | A. Burleson | J. Morgan | J. Morgan | 02/05/2016 | No |
| 6.0 | Updated to reflect latest FA approval date of 10-31-19. | W. Geitz | M. DeWitt  J. Morgan | D. Vollmer | 04/03/2020 | No |
| 7.0 | Updated to reflect FA date of 7-9-20. | W. Geitz | C. Raimer  M. DeWitt | D. Vollmer | 12/28/2020 | No |
| 8.0 | Updated to reflect FA date of 2-22-21. No changes to the CM. | W. Geitz | C. Raimer  M. DeWitt | M. Dewitt | 06/03/2022 | No |
| 9.0 | Updated to the latest FA date of 8-16-24 for spec 990. | W. Geitz | D. Bremer | M. DeWitt | 05/27/2025 | No |